

Appl. No. 10/035,349
Amdt. dated 12/3/2003
Reply to Office Action of November 5, 2003

PATENT

REMARKS

Claims 1-58 are pending. Claims 1, 14, 23, 32, 38, 45, and 48 are currently amended.

Claims 1, 14, 23, 32, 38, 45, and 48 have been amended to include the phrase "wherein said mass defect is less than 1 amu." Support for this phrase may be found throughout the specification, for example, on page 21, lines 15-29 (discussing examples of mass defects less than 1 amu), page 32, lines 11-19 (discussing characteristic peak patterns spaced at 1 amu), and page 74, lines 1-8 (discussing further examples of mass defects less than 1 amu and characteristic peak patterns spaced at 1 amu).

In addition, claims 1, 14, 23, 32, 38, 45, and 48 have been amended to emphasize that the methods of the claimed inventions include a separate step of identifying a mass spectrum data corresponding to labeled oligomer fragments, individual labeled oligomers, differentially labeled oligomers, labeled analytes, or labeled tags. Support for these amendments can be found throughout the specification, for example, at page 20, lines 19-27 (stating, in part, "[p]referred labels impart a unique mass signature to the fragments to which they are attached"); at page 23, lines 22-25 ("[i]n contrast, the present invention provides that labeling is carried out using only labels having a mass defect, to distinguish the labeled fragments from unlabeled fragment and provide a more robust, yet sensitive method"); at page 32, lines 14-29 (stating, in part, "it is possible to easily distinguish the signal peaks from labeled fragments that lie off this periodic spacing, such as labeled fragments wherein the label contains one or more elements with an unusual nuclear binding energy"); and at page 33, lines 20-34 (stating, in part "abundant isotope pairs will only exist for labeled fragments in the mass spectrum and the isotopes typically exhibit similar ionization and fragmentation efficiencies").

Therefore, no new matter has been added with this amendment.

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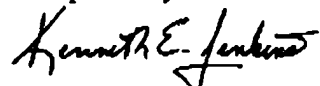
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Rejection under 35 U.S.C. § 103(a)

Claims 1, 2, 4, 7-15, 17-25, 28, 30-33, 36-38, 41-43, 45-46, 48-49, and 51-58 stand rejected under 35 U.S.C. 103(a) as obvious over Brennan *et al.*, U.S. Patent No. 5,174,962, in view of Yates *et al.*, U.S. Patent No. 6,017,693. Claims 55-58 stand rejected under 35 U.S.C. 103(a) as obvious over Brennan *et al.*, in view of Yates *et al.*, further in view of Schmidt *et al.*, U.S. Patent No. 6,287,780. Claims 3, 5, 6, 16, 27, 34, 44, 47, and 50 stand rejected under 35 U.S.C. 103(a) as obvious over Brennan *et al.*, in view of Yates *et al.*, further in view of Meyer *et al.*, U.S. Patent No. 6,359,111. Claims 26, 29, 35, 39 and 40 stand rejected under 35 U.S.C. 103(a) as obvious over Brennan *et al.*, in view of Yates *et al.*, further in view of Chait *et al.*, U.S. Patent No. 6,391,649.

In order to emphasize the novel features of the present invention over Brennan *et al.*, Applicants have amended claims 1, 14, 23, 32, 38, 45, and 48 to include the phrase "wherein said mass defect is less than 1 amu." Therefore, Applicants respectfully submit that all claims now pending in this Application are in condition for allowance.

Respectfully submitted,



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Attachments
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